*count of ſeveral Experiments made to examine the Nature of the Expanſion and Contraction of Fluids by Heat and Cold, in order to aſcertain the Diviſions of the* Thermometer, *and to make that Inſtrument, in all places, without adjuſting by a Standard. By Mr.* Edm. Halley, *S. R. S.*

6. *An Account of a Book*, viz. *Novæ Hypotheſeos* ad explicanda febrium intermittentium Symptomata & Typos excogitatæ, Hypotypoſis, unà cum ætiologiâ Remediorum; ſpeciatim vero de curatione per *Corticem Peruvianum*, acceſſit Diſſertaticuncula de Inteſtinorum motu Periſtaltico. Authore Guilielmo Cole *M.D.* Imp. Lond. in 8°. 1693. Proſtant apud *S. Smith.*

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# I. *Some Experiments on a Black Shining Sand brought from* Virginia, *ſuppos'd to contain Iron, made in* March 1689. *By* Allen Moulen, *M. D. and Fellow of the Royal Society, ſince Dead.*

1. A Small Phial fill'd with ordinary white Sand, and containing only ʒ*j. gr. xj.* being fill'd with the *Virginia* Sand was found to contain ʒ*ij*,℈*ij*, *gr. j*, that is, ʒ*jß.* more than what was equal to it in bulk.

2. This Sand did apply to the *Magnet* both before and after Calcination, but the latter did apply better to it than the former.

3. A parcel of this Sand mix'd and calcin'd with powder'd Charcoal, and kept in a melting Furnace for about an hour, yielded no *Regulus*, but apply'd more vigorouſly to the Load-ſtone than either of the former.

4. I

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4. I flux'd a parcel of this Sand with fix'd Nitre in a melting Furnace for above an Hour, but could obtain no *Regulus*, nor any ſubſtance that would apply to the Magnet, excepting a thin Cruſt that ſtruck firmly to a piece of Charcoal that dropt into the Crucible when the matter was in fuſion.

5. I flux'd it alſo with Salt-Peter and powder'd Charcoal, dropping pieces of Charcoal afterwards into the Crucible. It continu'd about an hour in the melting Furnace in fuſion, and that without producing a *Regulus* or a Subſtance that would apply to the Magnet, excepting only what ſtuck to the Charcoal, as in the former Experiment.

6. I flux'd another parcel of it with Salt-Peter and Flowers of Brimſtone, without being able to procure any *Regulus*.

7. I pour'd good Spirit of Salt on a parcel of this Sand, but could obſerve no Luctation thereby produc'd.

8. I pour'd Spirit of Nitre both ſtrong and weakned with Water on parcels of the ſame Sand, without being able to diſcover any Conflict.

9. I pour'd ſingle *Aqua fortis* upon another parcel of it, without being able to perceive any Ebullition worth noting.

10. I pour'd double *Aqua fortis* upon another parcel of it, which for ought I could diſcover had no more effect on it then the former.

11. I pour'd alſo ſome *Aqua Regia* on a parcel of it, without diſcovering any ſenſible Effect.

12. I pour'd good Oil of *Vitriol* upon another of this Sand, but ſeeing no Bubbles thereby produc'd, I weakned the Oil with Water, but without any ſenſible effect.

13. I repeated all the former Experiments with the *Menſtruums* upon this Sand after Calcination *per ſe* in a Crucible, but could ſcarce obſerve a Bubble produc'd by any of them.

14. I pour'd ſome of each of the Liquors upon Parcels of the Powder of this Sand calcin'd, without any Succeſs.

*Note*, That I made theſe Experiments both in the Cold, and upon a Sand Furnace. So that to me there ſeems to be but little wanting to diſcover any Metal known to us, if it contain'd any ſuch: For there is no Metal nor Oar that ſome of theſe *Menſtruums* will not work on.

15. I powder'd a Fragment of a Load-ſtone, and pour'd ſome of theſe *Menſtruums* upon it, without being able to find that they in the leaſt prey'd upon it, any more than they did upon the Sand.

16. I pour'd ſome of the afore-mentioned *Menſtruums* upon ordinary Sand taken out of a Sand Furnace, where it muſt have ſuffer'd ſome Calcination, but could find no more Bubbles produc'd thereby, than what might rationally be ſuppos'd to be produc'd from time, and other Dirt mixt with the Sand.